ABSTRACT OF THE DISCLOSURE

A dividing unit divides image data into a plurality of blocks. An extracting unit extracts a feature index of a first color component and a feature index of a second color component in each of the blocks. A registration unit registers information about a correspondence between the feature index of a second color component and a change in the feature index for the first color component. A code embedding unit embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered.